fluorinated; R13 is C1-C4alkyl, C1-C4alkoxy, -SiR4R5R6, halogen, -SO3M, CO2M, -PO3M, -NR7R8 or -(positive earthNR7R8R9)X negative earth; m is an integer from 1 to 3, n is 0 or an integer from 1 to 4, and the sum of m+n is 1 to 5; R3, R10, R11 have each independently of one another the same meaning as R2 or are each independently of one another C1-C12alkyl, C5-C12cycloalkyl, phenyl, C1-C4alkyl- or C1-C4alkoxy-substituted C5-C12cycloalkyl, or phenyl which is substituted by one to three identical or different members selected from the group consisting of C1-C4alkyl, C1-C4alkoxy, -SiR4R5R6, halogen,-SO3M, -CO2M, -PO3M, -NR7R8 and -(positive earthNR7R8R9)X negative earth; R4, R5 and R6 are each independently of one another C1-C12alkyl or phenyl; R7 and R8 are H, C1-C12alkyl or phenyl or R7 and R8, taken together, are tetramethylene, pentamethylene or 3-oxa-1,5-pentylene; R9 is H or C1-C4alkyl, M is H or an alkali metal, X negative earth is the anion of a monobasic acid, and * is a stereogenic carbon atom, in the form of their racemates and diastereoisomers or mixtures of diastereoisomers. Rhodium and iridium complexes with these ligands are suitable for use as homogeneous enantioselective catalysts for the hydrogenation of prochiral compounds containing carbon double bonds or carbon/hetero atom double bonds.

5585077

MOLYBDENUM EPOXIDATION CATALYST RECOVERY

Evans Thomas I; Harris Stephen H Glenmoore, PA, UNITED STATES assigned to ARCO Chemical Technology L P

An aqueous epoxidation process stream containing molybdenum and sodium values and organics is treated for organics removal as by incineration and an aqueous solution containing molybdenum and sodium is recovered, acidified and reacted with a calcium compound to form solid CaMoO4 which is separated.

5585451

SILICONE CONDENSATION AND/OR EQUILIBRATION CATALYST AND USE

Burkus Frank S; White Michael Clifton Park, NY, UNITED STATES assigned to General Electric Company

A silanol condensation-equilibration catalyst is provided in the form of a mixture of a linear phosphonitrilic chloride and an effective amount of a protic acid having a pKa< or =5, such as HCl. A material capable of generating a protic acid in situ during equilibration, such as an organohalosilane, is also effective.

5585523

PROCESS FOR THE PREPARATION OF ALDEHYDES BY CATALYTIC GAS PHASE HYDROGENATION OF CARBOXYLIC ACID OR THEIR DERIVATIVES WITH THE AID OF A TIN CATALYST

Weiguny Jen; Borchert Holge; Gerdau Thomas Weiterstadt, GERMANY assigned to Hoechst Aktiengesellschaft

Process for the preparation of aldehydes by catalytic gas phase hydrogenation of carboxylic acid or their derivatives with the aid of a tin catalyst The invention relates to a process for the preparation of aldehydes by catalytic gas phase hydrogenation of carboxylic acids or carboxylic acid derivatives at elevated temperature, which comprises employing at tin catalyst supplied to an oxidic support material.